

Date: Wednesday, 5/23/2007 3:43:15 PM
 ser: Kim Johnston

Process Sheet

5017

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : TOW RING
 Job Number : 32503
 Estimate Number : 10400
 P.O. Number :
 This Issue : 5/23/2007 S.O. No. :
 Prsht Rev. : NC Part Number : D2968043
 First Issue : 1 / 1 Type : MACHINED PARTS Drawing Number : D2968
 Previous Run : 30275 Drawing Revision : B1
 Material :
 Due Date : 6/30/2007 Qty: 22 Um: Each
 Written By :
 Checked & Approved By : 07.05.24
 Comment : Est.C 03.04.11 Reformat; Incorporated D2968-1/-5 KJ/RF

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 32503A STEM



Comment: Sub-Component STEM
 D2968-3 B 32503 A

FC

2.0 32503B RING



Comment: Sub-Component RING
 D2968-5 B 297910 x 14

0302750 x 16

Fe

3.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1
 Weld D2968-3 & D2968-5 as per Dwg D2968 & QSI 004 using 4130 welding rod Identify as D2968-043
 Batch: m102226

FC 07/06/25

30

4.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

07/06/25 30

5.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/06/25 30

6.0 OUTSIDE SERV.30 OUTSIDE SERVICES-MACH



Comment: Sub-Contracting PURCHASING
 Issue P/O: 4038
 Description: D2968-043 to heat treat to ultimate tensile strength
 125ksi as per Dwg D2968
 Conformity sheet required

07/06/25

30

30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 5/23/2007 3:43:15 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TOW RING

Job Number: 32503

Part Number: D2968043

Job Number:



Seq. #:

Machine Or Operation:

Description :

Issue P/O: 4039
Cad Plate per QQ-P-416F Class I Type II
Conformity sheet required

C 207/06/25

(30)

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Receive & Inspect For Transit Damage
Ensure certificate of conformity is attached

EP 07/07/25 (22)

8.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

EP 07/07/26 (22)

9.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING
Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3
DO NOT POWDER COAT THREADS

m 105068

FL 07/07/30 (22)

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

M-L 07/10/31 (22x)

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1
Identify and Stock
Location: 464

7/10/31 SQ

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

07.10.01

Job Completion



C 207/11/01

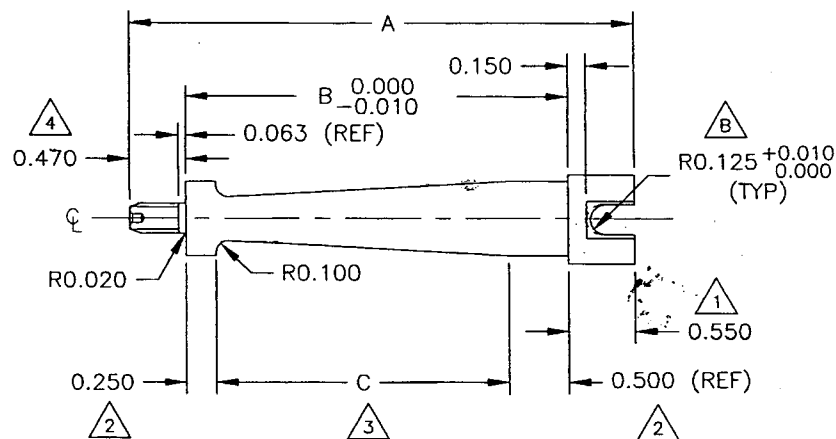
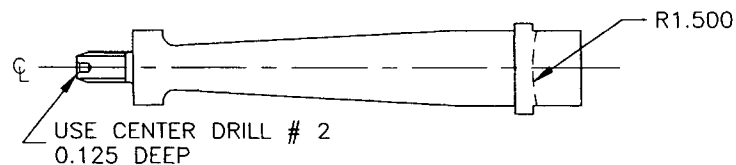
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



PART NUMBER	A	B	C
D2968-1	5.040	4.020	3.270
D2968-3	4.200	3.180	2.430

D2968-1/-3 STEM

D2968-1 AND D2968-3 STEM:

MATERIAL: AISI 4130

△ 0.750 O.D.

△ 0.625 O.D.

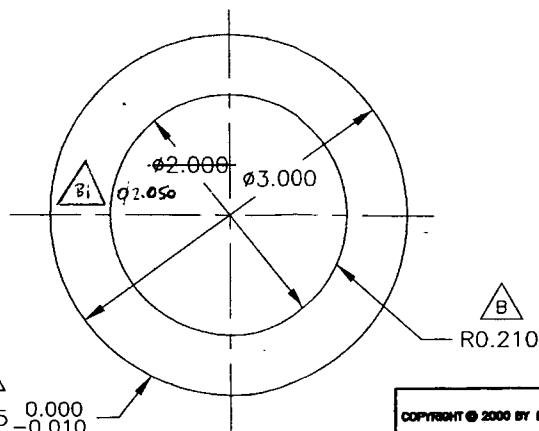
△ MACHINE UNIFORM TAPER FROM 0.363 O.D. TO 0.625 O.D.

△ 1/4-28 UNF THREAD WITH 0.063 GRIP
MACHINE ALL INSIDE EDGES WITH A 0.010 RADIUS
UNLESS OTHERWISE INDICATED
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

D2968-5 RING:

MATERIAL AISI 4130

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED



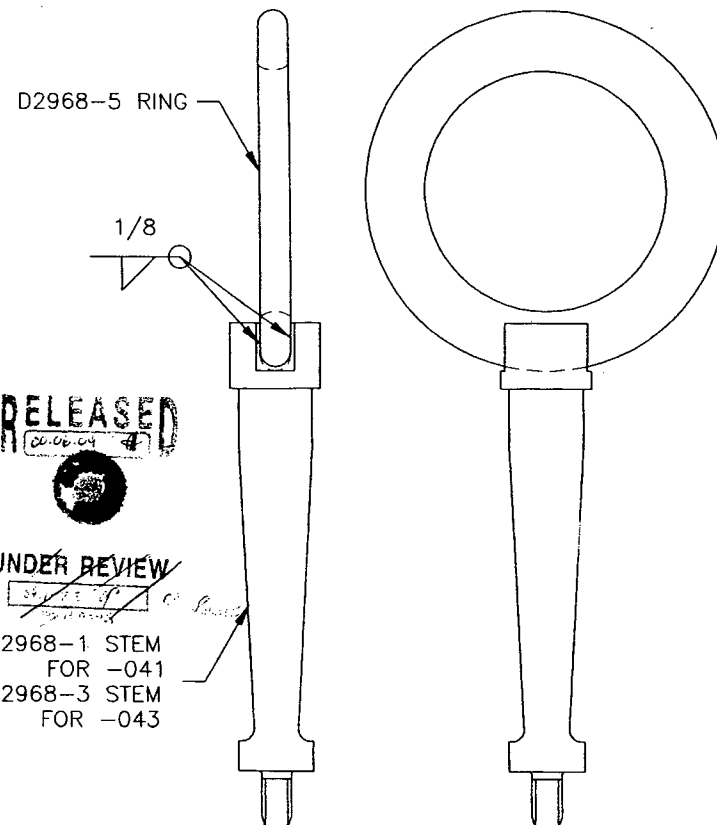
D2968-5 RING

RELEASED

UNDER REVIEW

USE 2968-1 STEM
FOR -041

USE 2968-3 STEM
FOR -043



D2968-041 AND D2968-043 TOW RING:

WELD PER QSI 004 ON ALL EDGES BETWEEN STEM AND RING
HEAT TREAT TO MIN ULTIMATE TENSILE STRENGTH OF 125 KSI

FINISH: CAD PLATE ENTIRE ASSEMBLY PER

QQ-P-416F CLASS I TYPE II

POWDER COAT WHITE (REF 4.3.5.2) PER DART

QSI 005 4.3 (EXCEPT THREADS)

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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THAT IT IS NOT TO BE USED FOR ANY PURPOSE
OR COPIED OR COMMUNICATED TO ANY OTHER
PERSON WITHOUT WRITTEN PERMISSION FROM
DART AEROSPACE LTD.

B	00.05.31	R0.125 AND R0.210 WERE 0.060 x 45°	
A	00.03.07	NEW ISSUE	
DESIGN	RF	DART	DART AEROSPACE LTD. HARRISBURG, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2968	REV. B SHEET 1 OF 1
DATE	00.05.31	TITLE TOW RING	SCALE 1:1

NO. 22502
WORK ORDER
32502
ENGINEERING
CONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
RETURN TO
SHOP COPY

MANCO DOMPLEX

8895 Crescent 3
Anjou (Québec) H1J 1B6
Tél.: 514-355-7867
Fax: 514-355-8750

CERTIFICAT DE CONFORMITÉ CERTIFICATE OF COMPLIANCE

17035

Dart Aerospace LTD
Client / Customer

1 Lot of pieces
de la pièce / part

P04039
Votre # de commande / Your purchase order #

105061
Notre # de bon de livraison / Our packing slip #

Inspecteur / Inspector	<u>Renaud</u>	Date, équipe / Date, shift	<u>22/07/07</u>
Placage / Plating	<u>QQP-416 CLASS 1 TYPE FF</u>		
Quantité totale / Total quantity	<u>1 Lot</u>	Quantité inspectée / Inspected quantity	<u>1 Lot</u>
Adhésif / Adhesion	<u>Good</u>		
Épaisseur / Thickness	L.C.D.	H.C.D.	Moy. / aver. <u>0.0005</u>
Coussins, taches / Leach, spots	<u>no</u>	Rugosité / Roughness	<u>no</u>
Quantité approuvée / Approved quantity	<u>1 Lot</u>	Quantité rejetée / Rejected quantity	<u>—</u>

Commentaires / Comments

D2768-041-B33099 = 30 PCS
D2768-043-B32503 = 30 PCS

Nous certifions que les pièces énumérées ci-dessus ont été faites en conformité avec vos dessins et spécifications et rencontrent les exigences contenues dans ces dessins et/ou spécifications.

We hereby certify that the parts listed above have been made in accordance with your drawings and specifications and are correct to the requirements contained in those drawings and/or specifications.

Signé au nom de
Signed on behalf of

**MANCO
DOMPLEX**